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ABSTRACT

Students (n=424) who transferred to a large public urban university in fall 1989 were surveyed at the time of their matriculation and 131 students were surveyed again in March 1993 to discover their perceptions of 12 institutional characteristics. Characteristics included quality of academic programs, variety of courses and programs, faculty teaching ability, faculty availability outside class, class size, availability of financial aid and scholarships, affordability of tuition and fees, convenience of campus location, attractiveness of campus facilities and grounds, social atmosphere, availability of student support services, and fairness of campus rules and regulations. A gap analysis was performed and related to the students' academic performance and persistence. Significant relationships were found between persistence and gap scores, indicating that changes in transfer students' perceptions of the university over time, and particularly of its academic environment, were important predictors for their graduation and persistence. For the vast majority of multiple-transfer respondents, their experience at the university did not measure up to initial expectations. The factor most significantly related to persistence was academic quality. Measures that colleges and universities could take to temper student expectations with a dose of realism and enhance the chances for student satisfaction are noted. (Contains 50 references.) (JDD)

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TRANSFER STUDENT EXPECTATIONS AND SATISFACTION : PREDICTORS FOR ACADEMIC PERFORMANCE AND PERSISTENCE

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This paper was presented at the annual meeting of the Association for the Study of Higher Education held at the Doubletree Hotel, Tucson, Arizona, November 10-13, 1994. This paper was reviewed by ASHE and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC collection of ASHE conference papers.

ABSTRACT

Most students will attend two or more colleges or universities en route to a Bachelor's degree. Transfer students tend to be demanding consumers of educational services, and their level of satisfaction is closely linked with their persistence to graduation. This study follows a group of 424 students who transferred to a large, public, urban university in Fall 1989. The students were surveyed at the time of their matriculation concerning their expectations of twelve institutional characteristics. They were surveyed again in March 1993 to discover their later perceptions of these same twelve characteristics. A gap analysis was performed and related to the students' academic performance and persistence. Significant relationships were found between persistence and gap scores, indicating that changes in transfer students' perceptions of the university over time, and particularly of its academic environment, were important predictors for their graduation and persistence.

TRANSFER STUDENT EXPECTATIONS AND SATISFACTION : PREDICTORS FOR ACADEMIC PERFORMANCE AND PERSISTENCE

In today's intensely competitive climate, colleges and universities are more concerned than ever with student satisfaction. The level of satisfaction students experience is highly predictive of their persistence at an institution (Comm and Schmidt, 1986; Noel and Levitz, 1994; Widdows and Hilton, 1990). Satisfied students are significantly more likely than dissatisfied ones to recommend a college or university to others; to contribute to and otherwise support it after graduation; and to enroll later in its graduate or executive education programs (Hartley and Berkowitz, 1983; Chadwick and Ward, 1987).

Since two-thirds of undergraduate degree recipients transfer at least once during their collegiate careers (U.S. Department of Education, 1986), many institutions are focusing on the satisfaction and retention of transfer students. In this paper, we will explore how the initial expectations of transfer students to a large urban midwestern university differ from their perceptions three and one-half years after enrollment, and how these changes are related to the students' persistence, graduation from the university, and academic performance.

THEORETICAL FRAMEWORK

Inconsistencies between students' expectations and the institutional environment have been found to increase the likeli-

hood of attrition and transfer (Moore, 1981; Peng, 1977; Wisner, 1984). These inconsistencies can be caused by institutional characteristics such as size, selectivity, type, control, class size, quality of teaching, and social life; and individual factors such as educational aspiration, academic performance, and socioeconomic status (Mallette and Cabrera, 1991; Peng, 1977). A number of researchers have used attrition as an index of student dissatisfaction with an institution (Gielow and Lee, 1988; Knox, Lindsay and Kolb, 1992; Tinto, 1975; 1987; 1993). However, there are limitations to this theory in that the reasons for leaving an institution may be beyond an individual's control (Bean, 1982; Gielow and Lee, 1988). In contrast, student satisfaction with various characteristics of a college is a voluntary measure and is an outcome which can be controlled by the institution (Knox et al., 1992; Levitz and Noel, 1989). Both Astin (1977) and Gielow and Lee (1988) found that, for students enrolled in four-year colleges and universities, a number of institutional characteristics had large direct influences on social and academic satisfaction levels. These included size, selectivity, academic reputation, curricular program variety, classroom instruction, and social atmosphere.

Although a great deal of information is available today to students engaged in the search process, research on college choice has shown that for both freshmen and transfer students the search is frequently incomplete, disorganized, and uninformed (Becker, 1988; Hossler, 1984; Hossler, Bean, and Associates, 1990). This often results in the selection of an institution that is a poor fit

for the student academically and/or socially. Not surprisingly, poor college choice has been identified as one of the primary reasons students transfer or drop out of their original institution (Bean, 1982; Hossler, 1984; Hossler et al., 1990; Tinto, 1987; 1993). In their extensive review of research on the causes of dropout, stopout and transfer behavior, Cope and Hannah (1975) estimated that poor college choice accounted for at least 20% of transferring among institutions. Poor choice often results from entering students' inflated and unrealistic expectations of academic and social life at an institution (Noel, Levitz, Saluri and Associates, 1987; Peng, 1977; Tinto, 1993).

Unrealistic expectations have been shown to result from college recruitment literature which is difficult to comprehend, inaccurate, or misleading (Comm and Schmidt, 1986; Litten, 1981; Noel et al., 1987). As Tinto (1993) pointed out, much of the information available to students is overly factual and describes an institution's student body, faculty, size, and academic program offerings. However, accurate and descriptive information concerning the informal social and academic atmosphere is sorely lacking. The growing competition for a shrinking pool of college applicants has resulted in an increase in aggressive promotional strategies, some of which are unethical and intrusive (Chapman and Stark, 1979; Litten, 1982; Noble, 1986). Inaccurate information may compound a student's already unrealistic expectations, causing the choice of an institution that is incompatible with the student's academic and/or social needs.

While most of the existing college choice models focus on the decision process which leads to a student's final choice of an institution, a model designed by Kotler and Fox (1985) contains an additional stage entitled "postdecision assessment." In this phase, the student experiences satisfaction or dissatisfaction with his or her choice, depending upon whether the institution "delivers the quality and attributes that attracted students in the first place" (p. 211). While a satisfied student will re-enroll each semester, a dissatisfied student will probably drop out or transfer. Kotler and Fox's model is derived from the marketing and consumer behavior literature, which describes a phenomenon entitled "postpurchase satisfaction" (Kotler, 1991). This satisfaction level is determined by the differential between the consumer's expectations of a product and the product's perceived performance once it is used (Korgaonkar and Moschis, 1982; LaBarbera and Mazursky, 1983). The level of consumer satisfaction is primarily a function of the size of the gap between expectations and performance (Day, 1984; Kotler, 1991; Mason and Ezell, 1993). When the seller exaggerates a product's benefits, consumers develop unrealistic expectations which lead to dissatisfaction (Kotler, 1991; Mason and Ezell, 1993).

The bulk of research on student expectations has involved administering the College Characteristics Index or CCI (Pace and Stern, 1958) to entering freshmen and transfers and comparing the expectation levels of these populations with one another or with those of upperclassmen (Buckley, 1971; Chapman and Baranowski,

1977). Findings have shown that both freshman and transfer student populations tend to harbor unrealistic expectations concerning a college's social and academic environment (Donato, 1973; Litten, Sullivan and Brodigan, 1983; Wisner, 1984). Two studies have measured incoming freshman expectations of a university and compared these ratings with students' actual perceptions several weeks after matriculation (Berdie, 1968; Widdows and Hilton, 1990). Both studies found large gaps between students' pre-entry expectations and later perceptions of academic and social characteristics. Widdows and Hilton (1989) found that the largest gaps occurred in the areas of faculty reputation, social activities, academic advising, student/faculty ratio, attractiveness of the campus, housing, financial aid availability, and specific academic programs. The only areas that exceeded students' expectations were academic reputation, college size, and religious opportunities.

A brand-new instrument, the Student Satisfaction Inventory or SSI, was designed by Juillerat and Schreiner and validated in a national study of 9,346 two- and four-year college students by Noel-Levitz Centers, Inc. in 1993. The SSI, based on consumer theory, purports to measure a "performance gap" between student expectations and satisfaction levels on a number of institutional characteristics. Areas of highest satisfaction for four-year college students included attractiveness and maintenance of campus grounds, knowledge and out-of-classroom availability of faculty, and reputation of the institution. The largest "performance gaps" for four-

year colleges concerned availability of financial aid, student parking, cafeteria food, and preferred classes. However, the instrument is methodologically flawed due to the post hoc nature of the responses it elicits. There is no time span between respondents' ratings of their expectation and satisfaction levels, since both ratings are given next to one another on the same survey form.

Our study attempted to go several steps beyond other research in this area to examine the relationships between persistence and graduation of transfer students, their academic performance, and the differential between their initial expectations and later perceptions of institutional characteristics. Rather than examining the expectations and perceptions simultaneously or within a few weeks of one another, this study utilized a longer time span than other studies (three and one-half years).

OBJECTIVES

The objectives of this study are to explore how the gap between transfer student expectations and perceptions is related to 1) persistence at the subject university from Fall 1989 through Summer 1994; 2) graduation from the university by Summer 1994 (five years after matriculation); 3) dropout from the university; and 4) students' academic performance (cumulative GPA) at the university.

METHOD AND DATA ANALYSIS

The Sample

The population for this study was the group of 906 undergraduate students who transferred to a large public midwestern university in Fall 1989 and who had attended two or more other postsecondary institutions prior to enrolling at the subject university. This group of multiple-transfer students constituted 44% of the university's incoming transfer population and 19% of the entering undergraduate population. A sample consisting of 424 subjects was randomly selected from the population to participate in the study, and our analysis indicated nonsignificant differences between the sample and the population.

Measurement and Variables

We drew secondary data on all 424 students in the sample from the university's official records. This information included 1) student demographics (age, gender, and ethnicity), 2) the type and control of previous higher education institutions attended, 3) the college in which each student was enrolled in the subject university (e.g., College of Arts and Sciences), 4) each student's cumulative GPA (beginning in Fall 1989 and ending in Summer 1994), 5) each student's enrollment status for all of those quarters; and 6) each student's graduation date and degree name. An operational definition of persistence was developed in which students who had graduated or had enrolled in classes during the previous year were classified as persisters and students who had not enrolled at the

university during the previous year were classified as non-persisters.

Primary data were obtained through two researcher-designed surveys administered three and one-half years apart. Questions on both surveys were based on research in the areas of college choice, student persistence, and transfer behavior. These variables included student background characteristics and student perceptions of institutional characteristics. Questions were presented in a Likert or summated rating scale format. The survey instruments were analyzed for content validity by experts in the field, and pilot tests indicated that the surveys had high face validity.

The initial survey was mailed to all 424 students in October and November, 1989. Survey questions focused on respondents' goal in transferring to the subject university, aspiration to earn an advanced degree (Master's, professional or Doctoral degree), and information sources used in choosing the university. Respondents were also asked to rank their expectations of 12 institutional characteristics of the subject university on a five-point bi-polar scale (ranging from 1 for "extremely negative" to 5 for "extremely positive"). These characteristics were quality of academic programs, variety of courses and programs, faculty teaching ability, faculty availability outside class, class size, availability of financial aid and scholarships, affordability of tuition and fees, convenience of campus location, attractiveness of campus facilities and grounds, social atmosphere, availability of student support services, and fairness of campus rules and regulations.

The follow-up survey was sent to all 424 students in the sample in March, 1993, with a repeat mailing to nonrespondents sent in April. Two versions of the instrument were designed: one for persisters who were still enrolled at the subject university or who had graduated from the university (n =193); and a second for non-persisters who had dropped out or transferred prior to the Summer 1994 quarter (n =231).

The follow-up survey replicated questions on degree aspiration and intent to graduate from the first survey, and contained questions concerning respondents' professional and/or graduate school plans. This version also asked respondents to rate their perceptions of the 12 institutional characteristics listed in the original survey on the same five-point bi-polar scale, so that a differential between prior expectations and actual perceptions could be calculated. The instrument sent to non-persisters contained the same questions as that sent to persisters and graduates. In addition, it included a series of questions concerning respondents' reasons for leaving/ transferring from the university. The surveys were supplemented by institutional data on all 424 students in the sample which included cumulative GPA, persistence, and graduation status through the Summer quarter, 1994.

RESULTS

First we will present secondary data which describe all 424 students in the sample. Next we will discuss characteristics of the students who returned both the original (1989) and follow-up

(1993) researcher-designed questionnaires (n =131). Finally, we will present results of the 1989 and 1993 surveys.

Characteristics of the Sample

According to secondary data taken from the university's records in Fall 1989, the majority of the 424 multiple-transfers in the original sample were white (66%), 18 to 22 years old (57%), were enrolled full-time (78%), were employed on- or off-campus (65%), and were classified as sophomores or seniors when they matriculated at the subject university (76%). In addition, 64% were enrolled in the College of Liberal Arts.

Of the 424 students in the sample, 218 (51.4 %) were either still enrolled at the subject university or had graduated by Summer quarter, 1994 (five years after they had matriculated). Over half of the students who did not persist left the university during the first year after matriculation. Many students in the sample stopped out at some point during the five years (that is, they left the university for two or more quarters and then returned). Table 1 shows the final academic year students were enrolled, by persistence status. It is expected that some of the students categorized as non-persisters may still return to the university at some point in the future.

Table 1
Last Academic Year Enrolled
By Persistence
Year

	89/90	90/91	91/92	92/93	93/94	Tot
Graduates	2	70	81	24	15	192
Continuing Students	--	--	--	--	26	26
Nonpersist Students	125	52	20	9	--	206
Total	127	122	101	33	41	424

For comparison purposes, the university provided persistence and graduation data in Summer, 1994 on first-time freshmen and on all transfers who matriculated there in Fall 1989 (UIC Office of Data Resources, 1994). These populations are compared with the multiple-transfer student sample in Table 2 below.

Table 2
Persistence and Graduation Comparison Data

	Native Freshmen (N=2,552)	All Transfer Students* (N=1,976)	Transfer Student Sample** (N=424)
Graduated	721 (28%)	796 (40%)	192 (45%)
Currently Enrolled	576 (23%)	124 (7%)	26 (6%)
No Longer Enrolled	1,255 (49%)	1,056 (53%)	206 (49%)

* First-time and multiple-transfer students. Includes sample of 424 multiple-transfers.

** 50% sample of all multiple-transfers.

As seen in Table 2, five years after matriculation a higher percentage of students in the multiple-transfer student sample had graduated than all transfer students combined or first-time freshmen, although more freshmen were still enrolled than the other two groups.

Characteristics of Survey Respondents

The initial survey, sent in Fall 1989, yielded a 65% return rate. There were few significant differences ($p = <.0000$) between respondents ($n = 275$) and nonrespondents ($n = 149$), indicating a low response bias. The primary differences occurred on the variables ethnicity, cumulative GPA, and persistence at the subject university. Respondents were significantly more likely to be white, to have earned higher (B to A) GPAs, and to be persisters through the Spring quarter, 1990 than non-respondents. Respondents also had high aspirations to earn an advanced degree, had attended college preparatory high schools, and had ranked in the top or second quarter of their high school class.

Respondents to the follow-up survey were very similar academically and demographically to the Fall 1989 survey respondents. The only significant differences between respondents and nonrespondents to the follow-up survey were that a much higher percentage of persisters (45%) than non-persisters (22%) responded to the survey and that a significantly higher percentage of female students responded (41%) than males (28%).

Of the 193 follow-up surveys mailed to graduates and currently

enrolled students (persisters) in 1993, 28 were returned as undeliverable and 80 completed surveys were returned (48% of delivered surveys). Of the 231 mailed to non-persisters, 48 were returned as undeliverable and 65 completed surveys were returned (34%). This was a 41% overall return rate. Of the 145 respondents, 131 had also replied to the 1989 survey.

One complication with the follow-up survey arose in relation to the operational classification of students as persisters (graduates and students enrolled during the past year) and non-persisters (students not enrolled during the previous year). Of the 231 students who were classified as non-persisters and sent the survey designed specifically for them in March 1993, 65 returned completed, useable surveys. Of those 65, 25 respondents returned to the subject university during the subsequent year. By August 1994, 17 of those 25 had graduated. These 25 respondents were then reclassified and added to the persister category. Conversely, six students who had been classified as currently enrolled in the Spring quarter 1993 were reclassified as non-persisters when they failed to re-enroll during the subsequent year. The breakdown of responding persisters and non-persisters was then altered to reflect these changes (see Table 3 below). The resulting mix of 46 non-persisters and 99 persisters produced a situation in which there was a significant difference in the response rate of these two groups.

Table 3

Respondents By Persistence Category

	Spring 1993	August 1994
Persisters	80	99
Non-persisters	65	46
Total	145	145

Expectations Versus Perceptions

In this paper, our major research objective was to explore how the gap between students' initial expectations (as given on the 1989 survey) and later perceptions (as given on the 1993 survey) were related to persistence and graduation. In order to answer this question, the study employed gap analysis to examine the changes in individual transfer students' perceptions of the 12 institutional characteristics addressed on the 1989 and 1993 surveys. On both the 1989 initial survey and the 1993 follow-up survey, these gap scores were computed by taking the difference between the responses of each of the 131 subjects who returned both surveys, as seen below in Table 4.

Table 4

Mean Survey Responses

	Mean Response		
	Original Survey (N=275)	Follow-up Survey (N=145)	Gap Score (N=131)
Academic Quality	4.15	3.68	.50
Variety of Courses	4.16	3.66	.56
Teaching Ability	4.14	3.48	.73
Faculty Availability	3.40	3.15	.27
Class Size	3.24	3.16	.10
Financial Aid	3.03	3.00	.07
Affordability	3.71	3.35	.44
Location	3.59	3.66	-.22
Physical Facilities	2.74	3.44	-.67
Social Atmosphere	2.69	2.37	.34
Support Services	3.40	2.74	.68
Rules & Regulations	3.50	3.44	.03

NOTE: The gap score represents only students who responded to both surveys, while the other two columns represent means of all respondents. Positive gap scores signify responses of worse than expected, while negative scores signify responses of better than expected.

Respondents to the original (1989) questionnaire had very high expectations of the following areas: academic program quality, variety of courses and programs, and faculty teaching ability. Respondents' expectations were moderately high in the areas of affordability of tuition and fees and convenience of the subject

university's campus location. Expectations were lowest concerning the attractiveness of campus facilities and grounds and social atmosphere.

Respondents who had most recently attended community colleges were found to have significantly higher expectations of academic program quality than those who had transferred to the subject university from other four-year institutions ($p < .0423$). Community college transfers also exhibited higher expectations of the subject university's social atmosphere, availability of support services, and availability of faculty outside the classroom than four-year college transfers.

When the expectations of 1989 survey respondents were compared with their actual perceptions three and one-half years later, major "expectation gaps" occurred on three of the same variables considered most important on the 1989 survey: academic quality, variety of courses and programs, and faculty teaching ability. Availability of student support services and affordability, factors considered only moderately important by 1989 survey respondents, also experienced large expectation gaps. Support service availability was second only to faculty teaching ability in the magnitude of the differential between students' initial expectations and later perceptions. The only two characteristics which exceeded respondents' expectations were convenience of campus location and attractiveness of campus facilities and grounds.

Of the 145 respondents to the follow-up survey, the non-persisters ranked the university's institutional characteristics

lower (on average) than did the persisters, particularly in the areas of faculty teaching ability, faculty availability outside class, class size, attractiveness of facilities and grounds, and rules and regulations. Non-persisters only gave a higher score than persisters to one item : availability of student support services. Table 5 illustrates the mean responses of persisters and non-persisters, and the resulting differences.

Table 5
Mean Responses to Follow-up Survey
By Persistence

	Persisters (N=99)	Non-Persisters (N=46)	Difference
Academic Quality	3.78	3.51	.27
Variety of Courses	3.69	3.56	.14
Teaching Ability	3.62	3.12	.50
Faculty Availability	3.27	2.79	.48
Class Size	3.28	2.88	.40
Financial Aid	3.03	3.03	.00
Affordability	3.37	3.31	.06
Location	3.69	3.53	.13
Physical Facilities	3.61	3.10	.51
Social Atmosphere	2.49	2.19	.30
Support Services	2.72	2.74	-.02
Rules & Regulations	3.61	3.10	.51

To compute the difference between respondents' initial expectations and later perceptions of the 12 institutional characteristics, a factor analysis was performed on the gap scores to reduce the data and to remove the problems associated with the colinearity present in most survey data. The results of the factor analysis were interesting in that the 12 characteristics loaded on three primary factors. Those factors can be seen as academic issues, student costs (monetary and convenience), and university environmental issues. The variables and the factor (in CAPS) on which they loaded were:

FACTOR 1	FACTOR 2	FACTOR 3
ACADEMIC	**COSTS**	**ENVIRONMENTAL**
Academic Quality	Affordability	Facilities
Course Variety	Financial Aid	Social Atmosphere
Faculty Availability	Location	Support Services
Class Size		Rules & Regulations
Teaching Ability		

Each of the 12 variables clearly loaded on the factor with which it was associated, with the possible exception of location. At first glance, location might seem to be more closely associated with environmental variables than with costs. Since the subject university is primarily a commuter institution, however, the loading of location on costs is reasonable. The location of the university imposes costs on its students in that the monetary cost of commuting may easily constitute one-third to one-half of a public university's tuition rate. The value of the students' time

also becomes an issue. The location of the university has an effect on how much time is spent commuting, and the student imputes a value on that time.

A logistic regression was then run with the three factors from the factor analysis as independent variables and the persistence variable as the dependent variable. The regression was significant ($p < .0457$), and the ACADEMIC factor was also significant ($p < .0147$). The other two factors were not significant. The direction of the Beta for the ACADEMIC factor suggests that the respondents perceived the academic aspects of the subject university to be not as good as they expected.

In addition to the logistic regression, crosstabs were run using a construct variable designed to capture the intensity of the gap scores. If the gap score (the difference between the 1989 survey response and the 1993 survey response) was -1, 0, or 1, the variable was scored as a 0. If the gap score was -2 or less, the value of the construct variable was placed at -1. If the gap score was 2 or greater, the construct score was placed at 1. (The range of the bi-polar rating scale was 1 to 5, so the range of the gap score was -4 to 4.) The theory behind this was that a change of 1 on a 5-point scale might not represent a major change in perception.

Persistence and Expectations.

The first crosstab was run between persistence and the construct variable derived from the academic quality gap scores (See Table 6 below).

Table 6
Perceived Academic Quality

	Much Better	As Expected	Much Worse	Total
Non-persisters	0	32	9	41
Persisters	0	75	7	82
Total	0	107	16	123

($p < .03708$)

Among both the persisters and the non-persisters, some respondents perceived the quality of the subject university's academic programs to be lower than they expected when they matriculated, while none perceived the quality to be higher. However, a greater percentage of non-persister respondents found the quality of academic programs to be lower than expected. While the results of the crosstabs for the other four variables (variety of courses and programs, faculty teaching ability, faculty availability outside class, and class size) related to academics were not as uniformly negative, all showed a much higher proportion of respondents giving a lower score on the later (1993) survey than on the earlier (1989) one. Table 7 below shows the results of the crosstab run between persistence and the construct variable derived from the affordability (tuition and fees) gap scores. It is interesting that the non-persisters had a less negative perception of the affordability of the university (in relation to their initial expectations) than the persisters. This may be related to

the fact that community college transfers who entered the subject university had a significantly higher graduation rate than students who had transferred from four-year institutions. Community colleges tend to have much lower tuition rates than four-year institutions, even public ones.

Table 7
Perceived Affordability

	Much Better	As Expected	Much Worse	Total
Non-persisters	8	24	8	40
Persisters	5	56	19	80
Total	13	80	27	120

($p < .07352$)

Persistence and Goals.

Persistence was found to be significantly related to the goals reported by respondents to both the 1989 and 1993 surveys. Those students who matriculated at the subject university with the goal of earning a Bachelor's degree graduated at a significantly higher rate than those who matriculated with the goal of transferring or taking courses without any intent of graduating. While this was expected, the significant relationship found between persistence and the choice of major by students was surprising. Students majoring in business, education, and engineering were significantly

more likely to persist than students majoring in liberal arts, physical education, art and architecture.

Academic Performance, Persistence and Expectations.

As expected, persistence at the subject university was significantly related to the academic performance (cumulative GPA) of the students in the sample ($p < 0.0000$). Students who perform well in their classes tend to accumulate credit and graduate. Students who do not perform well are more likely to become discouraged and drop out or flunk out.

The only gap between expectations and perception that was significantly related to academic performance concerned faculty availability outside the classroom ($p < .0067$). Respondents had lower perceptions than expectations of faculty availability. This drop was greater among respondents with higher GPAs, and may be related to a tendency of better students to initiate more contact with faculty members than other students.

DISCUSSION AND IMPLICATIONS

Data derived from the original and follow-up surveys indicated that for the vast majority of multiple-transfer respondents, their experience at the subject university did not measure up to initial expectations. Respondents were particularly unsatisfied with the university's academic characteristics, which had been the most important factors to them when they matriculated. The large expectation gaps found in faculty teaching ability, course and

program variety, and student support services agree with the earlier findings of Widdows and Hilton (1990). The multiple-transfer students' dissatisfaction with academic quality, however, was at odds with the high satisfaction levels reported by Widdows and Hilton (1990) and Noel and Levitz (1994). Studies by Astin (1977) and Gielow and Lee (1988) found that academic satisfaction was negatively associated with institutional size, which could have been the case in this study.

The non-persister respondents in our multiple-transfer sample were less satisfied with the subject university than the persisters. These findings are consistent with previous research showing that inconsistencies between student expectations and the institutional environment increase the likelihood of attrition and transfer (Kotler and Fox, 1985; Moore, 1981; Peng, 1977; Wisner, 1984) and with studies of consumer satisfaction indicating that satisfaction level reflects the size of the gap between expectations and performance (Day, 1984; Kotler, 1991; Mason and Ezell, 1993).

It is important to note that the factor that was significantly related to persistence was the ACADEMIC factor. This suggests that the multiple-transfer students in the sample took academic quality seriously. They were primarily older, working students who had performed well academically in high school, earned above-average grades at the subject university, and had a variety of college experiences. They were attending the subject university to get a Bachelor's degree, not to take courses for self-improvement or for job-related reasons.

In the 1993 follow-up survey, 39 (85%) of the responding non-persisters reported that they had transferred from the subject university to another institution. The behavior of transferring was significantly related to the number of colleges these students had previously attended and to their major curriculum, with students enrolled in professional programs less likely to transfer from the subject university than those enrolled in liberal arts curricula. Although these students did not persist to graduation at the subject university, they can be seen as persisting within the larger system of higher education. Given the importance that transfers place on academic program quality and variety when they choose institutions (Becker, 1988; Kearney, Townsend and Kearney, 1995; Wisner, 1984) and when they decide to transfer out of them (Desler, 1985; Johnson, 1987; Kearney et al., 1995), it was not surprising that these students chose to transfer from the subject university when their academic expectations were not met.

The multiple-transfer students in the sample have graduated from the university at a higher rate than one-time transfer students and at a much higher rate than native freshmen. Although this may be partially due to the large cache of credits with which many of the multiple-transfers arrived at the university, it may also reflect a comparison that these students made with the other universities they had previously attended. While these students found that the university did not live up to their original expectations, it may have looked better (or at least not much worse) than the other institutions. This was particularly the case

with the subject university's location and its facilities and grounds - characteristics that were easily observable to students prior to their matriculation.

Multiple-transfer students who had most recently attended community colleges before transferring to the subject university entered with higher expectations of academic program quality, faculty availability outside the classroom and support services availability than respondents who had previously attended four-year institutions. Perhaps this higher expectation level was due to community college transfers' perception that they would be entering a more prestigious, four-year university. Community college transfers in the sample also persisted and graduated at a higher rate than the four-year college transfers. A number of explanations are possible. The higher enrollment of community college transfers in professional and pre-professional programs might indicate a higher credential aspiration among these transfers than among transfers from four-year institutions. In addition, most community college transfers to four-year universities are continuing on a "normal" course toward an undergraduate degree. Community colleges were designed with articulation as a major goal. Students transferring among four-year institutions, on the other hand, have diverted from the "normal" course toward a degree and may be more likely to transfer, stop out or drop out on their way to degree completion.

Although this study is limited in its generalizability due to the use of one student cohort from a single institution, the results point to some measures that colleges and universities could

take to temper student expectations with a dose of realism and to enhance the chances for student satisfaction. Of the five institutional characteristics in which the largest expectation gaps existed for our respondents, perception of academic quality is probably the most difficult for an institution to define and control. The other four factors - course and program variety, faculty teaching ability, student support service availability and affordability - are all areas which could potentially be addressed by institutions in a straightforward manner in their communication with prospective and newly admitted students.

Instead of supplying prospective students with viewbooks filled with colorful images of students and campus buildings, an institution might send more specific, detailed information on academic programs offered, average time to degree completion in these programs, and any special requirements for particularly desirable but competitive majors such as engineering, physical therapy, business, and architecture. A realistic description of academic support service scope and availability would also be appropriate for prospective students, as would an accurate breakdown of costs for tuition, textbooks, parking and any program-specific fees that might considerably increase student expenses.

Transfer student applicants are not only interested in the above issues but also in an institution's articulation policies. These students are particularly concerned about losing credits during transfer, receiving good academic advising, having their financial aid reduced, and managing increasing costs when moving to

a new institution (Peng, 1977; Richardson and Bender, 1987; Wechsler, 1989). Since research has shown that both freshman and transfer student populations do not effectively utilize the variety of information sources available to them during the college choice process (Becker, 1988; Hossler, 1984, Kearney et al., 1995; Tinto, 1993), it is up to the prospective institution to provide clear, accurate materials related to the specific issues of concern to students. For transfers in particular, including those in our sample, this information should focus on the institution's academic environment.

Colleges and universities can also work to enhance satisfaction once students are enrolled. Orientation sessions directed at transfers could focus on academic program and course availability, academic support services, interaction with faculty, and financial issues. Faculty teaching ability, particularly at the largest institutions, can be addressed through faculty development, reward systems that emphasize teaching, and less use of part-timers and teaching assistants. Unfortunately, in the current economic climate and at most institutions these initiatives are far into the future. It is hoped that when many of these academic and financial concerns are addressed for students, the difficult issue of improving satisfaction with overall academic quality may begin to fall into place.

Further research in this area should focus on research at a larger variety of institutions and with a greater number of students - both freshmen and transfers. Since areas of

satisfaction and dissatisfaction will vary depending upon institutional type, control, size and other factors, it is important that colleges and universities do institution-specific studies to assess expectation gaps on their own campuses before attempting to implement programmatic initiatives.

The results of this study should be extremely useful to institutions seeking to attract and retain transfer students and to researchers interested in studying this population. Identification of the areas in which gaps exist between student expectations and experiences will make it possible for institutions to improve the campus environment so that it is more responsive to transfer students' academic and social needs. An examination of these gaps may also reveal that institutions need to alter the image they present to prospective students so that student experiences more closely match the realities they will find on the campus.

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